

CLAIMS

1. A coating composition, for the anti-adhesive coating of wound dressings, comprising a nanosol that contains silica and at least one hydrophobic organic silicon compound.
2. The coating composition according to Claim 1, wherein the hydrophobic organic silicon compound comprises one or a plurality of compounds which are selected from the following groups:
 - trialkoxysilane $R^1Si(OR)_3$, wherein R^1 is an alkyl group having 8 to 18 carbon atoms,
 - arylsilane $R^2Si(OR)_3$ or a diarylsilane $R^2_2Si(OR)_2$, wherein R^2 is an aryl group,
 - triphenylsilane chloride or t-butyldiphenylsilane chloride,
 - hydrophobically modified polysiloxanes having alkyl and/or phenyl side groups,
 - oleophobic compounds $R^3Si(OR)_3$, wherein R^3 is a perfluorinated alkyl group,
 - oleophobic polysiloxanes having perfluorinated alkyl side chains.
3. The coating composition according to one of Claims 1 or 2, which contains an epoxysilane compound, so that partially hydrophilic properties are created.
4. An anti-adhesive layer, especially for a wound dressing, which comprises a xerogel with silica and at least one hydrophobic organic silicon compound.
5. The anti-adhesive layer according to Claim 4, wherein the hydrophobic organic silicon compound comprises one or a plurality of compounds which are selected from the following groups:

- trialkoxysilane $R^1Si(OR)_3$, wherein R^1 is an alkyl group having 8 to 18 carbon atoms,
- arylsilane $R^2Si(OR)_3$ or a diarylsilane $R^2_2Si(OR)_2$, wherein R^2 is an aryl group,
- triphenylsilane chloride or t-butyldiphenylsilane chloride,
- hydrophobically modified polysiloxanes having alkyl and/or phenyl side groups,
- oleophobic compounds $R^3Si(OR)_3$, wherein R^3 is a perfluorinated alkyl group,
- oleophobic polysiloxanes having perfluorinated alkyl side chains.

6. The anti-adhesive layer according to one of Claims 4 or 5, which contains an epoxysilane compound, and partially hydrophilic properties are created.
7. A composite of a wound dressing and a coating composition or an anti-adhesive layer according to one of the preceding Claims.
8. The composite according to Claim 7, in which the wound dressing comprises a flat textile form, foamed plastic or gel.
9. A method for the manufacture of a coating composition according to one of Claims 1 through 3, wherein the silica-containing nanosol is formed by hydrolysis of tetraalkoxysilanes and at least one hydrophobic organic silicon compound in an organic, organic-aqueous or aqueous solvent.
10. A method for the manufacture of a coating composition according to one of Claims 1 through 3, wherein the silica-containing nanosol is formed by hydrolysis of tetraalkoxysilanes in an organic, organic-aqueous or

aqueous solvent and which is mixed with at least one hydrophobic organic silicon compound.

11. A method for the anti-adhesive coating of a wound dressing having the steps:
 - manufacture of a coating composition according to a method in accordance with Claim 9 or 10,
 - application of the coating composition on the wound dressing, and
 - drying by means of solvent removal to form a xerogel layer.
12. The method according to Claim 11, in which the application of the coating composition comprises a single-sided coating, a two-sided coating or an impregnation of the wound dressing.
13. The method according to Claim 11 or 12, in which the application is carried out as a closed coating or impregnation or as a partly discontinuous coating or impregnation.
14. The method according to one of Claims 11 through 13 in which after the drying a heat treatment is carried out at a temperature between 25 °C and 180 °C.
15. Use of a coating composition according to one of Claims 1 through 3 for the treatment of wound dressings in order to reduce the adhesion between wound and wound dressing.